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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/543,192

07/22/2005

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EXAMINER

KNABLE, GEOFFREY L

ART UNIT

PAPER NUMBER

1733

MAIL DATE

DELIVERY MODE

09/06/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/543,192

Applicant(s)

MIZOTA, YASUO

Examiner

Geoffrey L. Knable

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/22/05; 5/8/06</u> . | 6) <input type="checkbox"/> Other: ____.  |

1. The disclosure is objected to because of the following informalities:

The references to the claims by number at pages 2-5 of the specification should be removed, especially given that claim numbering may change during prosecution.

At page 7, lines 2-12, reference numerals "18A" and "18B" are used but are not present in the figures. It appears these may have been intended to be "14A" and "14B" in view of Fig. 1.

Appropriate correction is required.

2. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 6-7, it is not entirely clear what the "transverse direction" is transverse of or to. In other words, any direction could be termed a "transverse direction" without defining what this is transverse of or to.

In claim 1, lines 8-14, the terminology "one side" and "another side" in the peripheral direction of the drum is indefinite and confusing, especially given that it is apparently intended to refer to two different circumferentially spaced locations, these however being seemingly on the same side of the drum. In other words, one would normally read two different "sides" of the drum in the circumferential/peripheral direction as being for example the side facing to the left in fig. 1 and the side facing to the right in fig. 1 - this is however not what is intended and as such, clarification is required.

In claim 3, lines 2-7, the same requirement is essentially repeated with slightly different language, this creating an ambiguity.

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2001-105509 to Yokohama Rubber.

JP '509 (Derwent abstract as well as machine translation included with this office action) discloses a tire reinforcing layer forming device forming a tire reinforcing layer on an outer peripheral surface of a drum (8), the tire reinforcing layer forming device comprising: a drum (8) able to rotate in both forward and reverse directions (e.g. note arrows in fig. 2); conveying means ("C" and/or "7") for conveying, toward the drum, a strip-shaped reinforcing material in which a plurality of cords, which are aligned parallel to one another, are rubber coated; cutting means (6) for cutting the reinforcing material obliquely with respect to a transverse direction; a first conveying path (7a) provided at a reinforcing material conveying direction downstream side of the cutting means, and guiding the reinforcing material toward one side in a peripheral direction of the drum; a second conveying path (7b) provided at the reinforcing material conveying direction downstream side of the cutting means, and guiding the reinforcing material toward

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another side in the peripheral direction of the drum. Further, although it does not appear to be explicitly disclosed, given that the same supply conveyor "C" would supply both upper and lower conveyors 7a/7b, it is considered to have been implicit or certainly obvious that distributing means would or should be provided for distributing the reinforcing material, which has been cut, to one of the first conveying path 7a and the second conveying path 7b. As to the axial direction moving means, JP '509 depicts the upper conveyor movable in the axial direction along rails 10 and indicates in the provided Derwent abstract that "at least one" of the conveyors is movable horizontally along the guide rail. The other abstract provides a similar disclosure. As such, providing both conveyor paths to be movable axially is suggested. A device as required by claim 1 is therefore anticipated or obvious from this disclosure.

6. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suda et al. (US 2003/0051794) taken alone or further in view of Hitotsuyanagi et al. (US 2002/0046796).

Suda et al. discloses a tire reinforcing layer forming device forming a tire reinforcing layer on an outer peripheral surface of a drum, the tire reinforcing layer forming device comprising: a drum (105/205; note also paragraph [0135]); conveying means for conveying, toward the drum, a strip-shaped reinforcing material in which a plurality of cords, which are aligned parallel to one another, are rubber coated (e.g. fig. 18); cutting means (232) for cutting the reinforcing material obliquely with respect to a transverse direction; a first conveying path (236) provided at a reinforcing material conveying direction downstream side of the cutting means, and guiding the reinforcing

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material toward one side in a peripheral direction of the drum; a second conveying path (238) provided at the reinforcing material conveying direction downstream side of the cutting means, and guiding the reinforcing material toward another side in the peripheral direction of the drum (e.g. note the two outlet sides 237/239 are spaced in the peripheral/circumferential direction - fig. 25); distributing means (235) for distributing the reinforcing material, which has been cut, to one of the first conveying path and the second conveying path; and axial direction moving means moving at least the first conveying path and the second conveying path along an axial direction of the drum (note lateral movement in figs. 25-26 which would be axial when used with a drum rather than flat conveyor 205 - compare fig. 11). As to providing the ability for the drum to rotate in both forward and reverse directions, Suda et al. indicates that to lay the inclined strips, the conveyor 205 is moved both forward and backward (e.g. compare figs. 23 and 25 as well as paragraph [0122]). Further, Suda et al. indicates that a belt-forming drum can be used in place of the conveyor belt (paragraph [0135]). As such, when using a belt drum as the laying surface, it is considered that the ordinary artisan would have found it obvious to provide the ability for the drum to rotate in both forward and reverse directions in order to be able to effectively lay the inclined strips in the analogous manner as used with the conveyor belt 205. Such is especially true in view of Hitotsuyanagi et al., which is also directed to forming an inclined cord ply by successive laying cord material and in particular suggests laying on either a flat surface (fig. 8) or a drum (fig. 11), opposite drum rotation directions being shown to be understood as an alternative to opposite movement directions of the flat surface (note

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directions "Y" in each figure). A device as required by claim 1 is therefore obvious. As to claim 2, in Suda et al. the reinforcing material exit at 237 (figs. 25-26) is inclined in the opposite direction to the material exit at 239 (fig. 27). As to claim 3, Suda et al. does not detail the mounting of the applying head but does seem to indicate that it could or should be movable out of engagement with the surface (note raised location in fig. 8). Further, it is submitted that the ordinary artisan would have understood the need to provide a way to raise the applying head from the surface to allow repositioning of the head and/or removal/introduction of the drum/tire. To include means to bring the applying head towards and away from the drum would therefore have been obvious. The rotation of the head also would include motions at least including components that would be orthogonal to the other motions.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tourtellotte et al. (US 3,071,179) taken in view of JP 2001-105509 to Yokohama Rubber.

Tourtellotte et al. discloses a tire reinforcing layer forming device forming a tire reinforcing layer on an outer peripheral surface of a drum, the tire reinforcing layer forming device comprising: a drum (10) able to rotate in both forward and reverse directions; conveying means (B) for conveying, toward the drum, a strip-shaped reinforcing material in which a plurality of cords, which are aligned parallel to one another, are rubber coated; cutting means for cutting the reinforcing material obliquely with respect to a transverse direction (col. 2, lines 55-60); a first conveying path (D) provided at a reinforcing material conveying direction downstream side of the cutting

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means, and guiding the reinforcing material toward one side in a peripheral direction of the drum; a second conveying path (E) provided at the reinforcing material conveying direction downstream side of the cutting means, and guiding the reinforcing material toward another side in the peripheral direction of the drum; and distributing means for distributing the reinforcing material, which has been cut, to one of the first conveying path and the second conveying path (compare fig. 1 and fig. 2). As to the requirement for an axial direction moving means, in view of JP '509, which is likewise directed to applying plies to opposite sides of a reversely rotating drum and suggests lateral moving means for the conveyors, to provide an axial degree of freedom for the two conveying paths would have been obvious in order to predictably allow control of the lateral positioning of the applied plies.

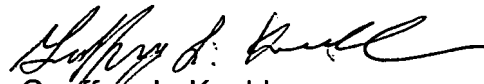
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Geoffrey L. Knable  
Primary Examiner  
Art Unit 1733

G. Knable  
August 31, 2007